

Andrew J.Battjes  
Multi-Color Corporation  
2281 S US 31  
Scottsburg, Indiana 47170

Dear Andrew J.Battjes:

Re: Exempt Construction and Operation Status,  
143-11915-00007

The application from Multi-Color Corporation, received on February 28, 2000, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following Electron Beam coating and curing line, to be located at 2281 S US 31, Scottsburg, Indiana 47170, Indiana, is classified as exempt from air pollution permit requirements:

- (a) One (1) Offset Gravure Coater station with Electron Beam Curing Unit, with a maximum line speed of 1000 feet per minute, printing width of 42 inches with maximum coverage of 4.74 pounds per million square inches.

The following conditions shall be applicable:

- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following:
  - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
- (2) Pursuant to 326 IAC 8-2-5 (Surface Coating Emission Limitations: Paper Coating Operations), No owner or operator of a coating line subject to this section may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of two and nine tenths (2.9) pounds per gallon excluding water, delivered to the coating applicator from a label coating line.

This existing source has submitted their Part 70 application (T 143-9310-00007) on December 17, 1997. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Management (OAM) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Management

GS

cc: File – Scott County  
Scott County Health Department  
Air Compliance – Joe Foyst  
Permit Tracking - Janet Mobley  
Technical Support and Modeling - Michele Boner  
Compliance Data Section - Karen Nowak  
Office of Enforcement  
Part 70 Application File - T-143-9310-00007

**Indiana Department of Environmental Management  
Office of Air Management**

**Technical Support Document (TSD) for an Exemption**

**Source Background and Description**

**Source Name:** Multi-Color Corporation  
**Source Location:** 2281 S US 31, Scottsburg, Indiana 47170  
**County:** Scott  
**SIC Code:** 2754  
**Operation Permit No.:** 143-11915-00007  
**Permit Reviewer:** Gurinder Saini

The Office of Air Management (OAM) has reviewed an application from Multi-Color Corporation relating to the construction and operation of Off-line coating unit applying over-print varnish to pre-printed substrate, cured by an Electron Beam curing system.

**Unpermitted Emission Units and Pollution Control Equipment**

The source also consists of the following unpermitted facilities/units:

- (a) One (1) Offset Gravure Coater station with Electron Beam Curing Unit, with a maximum line speed of 1000 feet per minute, printing width of 42 inches with maximum coverage of 4.74 pounds per million square inches.

**Existing Approvals**

The source has been operating under previous approvals including, but not limited to, the following:

- (a) 143-8004I, Construction Permit – Interim, issued on February 12, 1997;
- (b) 143-8004, Construction Permit – State, issued on January 27, 1998;
- (c) 143-8174, Construction Permit – Administrative Amendment, issued on August 06, 1997;
- (d) 143-8583I, Construction Permit – Interim, issued on July 15, 1997;
- (e) 143-9536, Construction Permit – Modification, issued on April 08, 1998;
- (f) 143-11405, Construction Permit – Exemption, issued on November 17, 1999;
- (g) 143-9310, Part 70 Permit – Pending under review

This exempt unit will be incorporated in the Part 70 Permit no. 143-9310-00007 before issuance.

### Stack Summary

There are no stacks associated with this source.

### Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on February 28, 2000.

### Emission Calculations

See Appendix A page 1 of 1 of this document for detailed emissions calculations. The emission calculations are based on 1% Volatile Organic Compounds content in the Electron Beam Cured ink as has been accepted by EPA Region V on July 10, 2000.

### Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.

Pollutant	Potential To Emit (tons/year)
PM	-
PM-10	-
SO <sub>2</sub>	-
VOC	6.2
CO	-
NO <sub>x</sub>	-

- (a) The potential to emit any regulated pollutant is less than ten (10) tons per year. Thus, Pursuant to 326 IAC 2-1.1-3, an exemption will be issued.
- (b) Fugitive Emissions  
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

### Actual Emissions

No previous emission data has been received from the source.

## County Attainment Status

The source is located in Scott County.

Pollutant	Status (attainment, maintenance attainment, or unclassifiable; severe, moderate, or marginal nonattainment)
PM-10	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Scott County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (b) Scott County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

## Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	-
PM10	-
SO <sub>2</sub>	-
VOC	6.2
CO	-
NO <sub>x</sub>	-
Single HAP	-
Combination HAPs	-

- (a) This new source is not a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

## Source Status

Existing Source PSD Definition (the source is an existing PSD major source prior to the issuance of the Part 70 Operating Permit, T143-9310-00007. However, through the Part 70 Operating Permit, the source has requested a potential to emit VOC limit source-wide to less than the PSD

major source threshold level as follows):

Pollutant	Emissions (tons/year)
PM	2.06
PM-10	2.06
SO <sub>2</sub>	0.16
VOC	248.63
CO	22.82
Nox	27.16

This existing major source is now a minor stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the 28 listed source categories.

### Proposed Modification

PTE from the proposed modification (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

Pollutant	PM (ton/yr)	PM10 (ton/yr)	SO <sub>2</sub> (ton/yr)	VOC (ton/yr)	CO (ton/yr)	NO <sub>x</sub> (ton/yr)
Proposed Modification	-	-	-	6.2	-	-
PSD or Offset Threshold Level	250	250	250	250	250	250

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

### Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source has submitted their Part 70 T-143-9310-000007 application on December 17, 1997. The equipment being reviewed under this permit shall be incorporated in the submitted Part 70 application.

### Federal Rule Applicability

(a) New Source Performance Standards (NSPS):

- 40 CFR § 60.610, Subpart QQ - Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing.

This NSPS applies to each publication rotogravure unit for which Construction, Modification or Reconstruction commenced after October 28, 1980.

As this unit does not produce and publication using Rotogravure Printing, this NSPS does not apply

- (b) There are no other New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (c) National Emission Standards for Hazardous Air Pollutants (NESHAPs)
  - 1. 40 CFR § 63.820, Subpart KK – National Emission Standards for the Printing and Publishing Industry.

This NESHAP applies to each publication rotogravure unit which is a major source of HAPs.

As this unit does not use any HAPs, this NESHAP does not apply
- (d) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.

#### **State Rule Applicability - Entire Source**

##### **326 IAC 2-6 (Emission Reporting)**

This source is located in Scott County and the potential to emit VOC is less than ten (10) tons per year. The source is not one of the twenty-eight (28) listed sources, therefore, 326 IAC 2-6 does not apply.

##### **326 IAC 5-1 (Visible Emissions Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### **State Rule Applicability - Individual Facilities**

##### **326 IAC 8-2-5 (Surface Coating Emission Limitations: Paper Coating Operations)**

No owner or operator of a coating line subject to this section may cause, allow, or permit the discharge into the atmosphere of any volatile organic compounds in excess of two and nine tenths (2.9) pounds per gallon excluding water, delivered to the coating applicator from a label coating line.

#### **Conclusion**

The construction and operation of this Off-line coating unit applying over-print varnish to pre-printed substrate, cured by an Electron Beam curing system shall be subject to the conditions of the attached proposed exemption Permit 143-11915-00007.

**Appendix A: Emissions Calculations**

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**VOC From Electron Beam Cured Printing Press Line**

**Company Name:** Multi-Color Corporation  
**Address City IN Zip:** 2281 S US31, Scottsburg, IN 47170  
**CP:** 143-11915  
**Pit ID:** 143-00007  
**Reviewer:** Gurinder Saini  
**Date:** 07/19/2000

THROUGHPUT			
Press I.D.	MAXIMUM LINE SPEED (FEET/MIN)	MAXIMUM PRINT WIDTH (INCHES)	MMin^2/YEAR
EB Coater	1000	42	264902

INK VOCS					
Ink Name Press Id	Maxium Coverage '(lbs/MMin^2)	Weight % Volatiles*	Flash Off %	Throughput (MMin^2/Year)	Emissions (TONS/YEAR)
EB OPV	4.74	1%	100.00%	264902	6.28
Total VOC Emissions =				<b>6.28 Ton/yr</b>	

\*VOC (Tons/Year) = Maximum Coverage pounds per MMin^2 \* Weight % volatiles (weight % of water & organics - weight % of water = weight % organics) \* Flash off \* Throughput \* 1 Ton per 2000 pounds

**METHODOLOGY**

Throughput = Maxium line speed feet per minute \* Convert feet to inches \* Maximum print width inches \* 60 minutes per hour \* 8760 hours per year = MMin^2 per Year

VOC = Maximum Coverage pounds per MMin^2 \* Weight percentage volatiles (water minus organics) \* Flash off \* Throughput \* Tons per 2000 pounds = Tons per Year

NOTE: HEAT SET OFFSET PRINTING HAS AN ASSUMED FLASH OFF OF 80%. OTHER TYPES OF PRINTERS HAVE A FLASH OFF OF 100%.

(Source -OAQPS Draft Guidance, "Control of Volatile Organic Compound Emissions from Offset Lithographic Printing (9/93) )